What is claimed is:

- 1. A method for preparing carbon-derived char comprising the steps of:
 - (a) providing a carbonaceous precursor material;
 - (b) lowering the agglomeration value of the carbonaceous precursor material through the addition of inert organic matter;
 - raising the percentage of volatiles in the carbonaceous precursor material to prevent agglomeration and caking;
 - (d) roasting the carbonaceous precursor material in a substantially anaerobic environment; and
 - (e) cooling the resultant solid char.
 - 2. The method of claim 1 further comprising the steps of:
 after step d) and before step e)
 - (f) extracting tar gases;
 - (g) filtering the tar gases; and
 - (h) washing the tar gases.
- 3. The method of claim 1 wherein during step d), the roasting temperature is between about 300 and 700 degrees Celsius.

- 4. The method of claim 2 wherein during step d), the carbonaceous precursor material is roasted for between about 2 hours and about 4 hours.
- 5. The method of claim 1 wherein step d) occurs in a multihearth roaster with the ability to move a thin layer of material with rotating arms equipped with plow-shaped protrusions.

6. The method of claim 5 wherein the roaster further includes a plurality of decks constructed of non-corrosive metal with high-heat transfer characteristics, wherein each deck includes floor supports and ceilings formed from thin-shelled reinforced concrete double-wall construction.

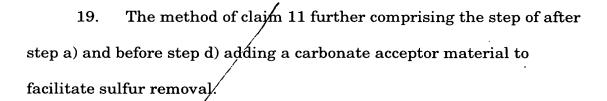
- 7. The method of claim 6 wherein the roaster further includes a number of outside walls and wherein each outside wall has at least one port adapted to provide anaerobic access to the roaster.
- 8. The method of claim 2 wherein step f) includes the use of injected steam to assist in the removal of the tar and producer gases.
- 9. The method of claim 1 further comprising the step of after step a) and before step d) adding a carbonate acceptor material to facilitate sulfur removal.

- 10. The method of claim 1 wherein step e) further includes depositing the resultant solid char in an inverted cone-shaped bin and injecting steam thereinto.
- 11. A low-emission solid carbonaceous fuel produced by the following process steps:
 - providing a carbonaceous precursor material; a)
 - lowering the agglomeration value of the carbonaceous b) precursor material through the addition of inert organic matter;
 - c) raising the percentage of volatiles in the carbonaceous precursor material prevent agglomeration and caking;
 - d) roasting the carbonaceous precursor material in a substantially anaerobic environment; and
 - cooling the resultant solid char. e)
 - The method of claim 11 further comprising the steps of: **12**. after step d) and before step e)

 f) extracting tar gases;

- filtering the tar gases; and washing the tar gases.
- h)

- 13. The method of claim 11 wherein during step d), the roasting temperature is between about 300 and 700 degrees Celsius.
- 14. The method of claim 12 wherein during step d), the carbonaceous precursor material is roasted for between about 2 hours and about 4 hours.
- 15. The method of claim 11 wherein step d) occurs in a multihearth roaster with the ability to move a thin layer of material with rotating arms equipped with plow-shaped protrusions.
- 16. The method of claim 15 wherein the roaster further includes a plurality of decks constructed of non-corrosive metal with high-heat transfer characteristics, wherein each deck includes floor supports and ceilings formed from thin-shelled reinforced concrete double-wall construction.
- 17. The method of claim 16 wherein the roaster further includes a number of outside walls and wherein each outside wall has at least one port adapted to provide anaerobic access to the roaster.
- 18. The method of claim 12 wherein step f) includes the use of injected steam to assist in the removal of the tar gases.



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20. The method of claim 11 wherein step e) further includes depositing the resultant solid char in an inverted cone-shaped bin and injecting steam thereinto.

- 21. A process for the production of efficiently burning solid char fuel, comprising the steps of:
 - a) providing a carbonaceous precursor material including at least one of the following: bituminous coal, coke,
 lignite, peat, oil shale and tar sands;
 - adding up to about 20 weight percent of an organic additive to the carbonaceous precursor material to produce a mixture, wherein the organic additive includes at least one of the following: peat, lignite, animal excrement, animal products, vegetable products, paper, waste food, shredded rubber and dry trash;
 - c) introducing the mixture into an anaerobic environment maintained at a temperature between about 300 and about 800 degrees Celsius;
 - d) agitating the mixture;
 - e) roasting the mixture until the mixture is fully charred;
 - f) removing the char from the anaerobic environment; and
 - g) cooling the char.